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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/798,141

03/10/2004

Paul Losbichler

LOSBIHLER

5331

20151

7590

03/03/2006

HENRY M FEIEREISEN, LLC

350 FIFTH AVENUE

SUITE 4714

NEW YORK, NY 10118

EXAMINER

HOFFBERG, ROBERT JOSEPH

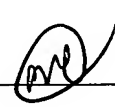
ART UNIT

PAPER NUMBER

2835

DATE MAILED: 03/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/798,141	Applicant(s) LOSBIHLER, PAUL 	
	Examiner Robert J. Hoffberg	Art Unit 2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/30/04</u> . | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Austria on 3/10/03. It is noted, however, that applicant has not filed a certified copy of the Austria application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by McWilliams et al. (US 5,310,993).

With respect to Claim 1, McWilliams et al. teaches a temperature sensor for a radiant heating unit (Fig. 1, #10) formed of a heating coil (disposed in a cup (Fig. 2, #12) and a plate (Fig. 2, #20) covering the cup, comprising: a switch (Fig. 3, #44) having a switch housing (Fig. 3, #68) attached to the cup and stationary contacts (Fig. 3, #86) affixed to the switch housing and at least one movable switching contact (Fig. 3, #80) that cooperates with the stationary contacts; a rod (Fig. 3, #46 and #72) having at least two sections (Fig. 3, left of #54 and right of #54); and a tube (Fig. 3, #48 and #50) having two ends (Fig. 3, #54 and 56) and extending in a direction essentially parallel to the plate through at least one thermally insulating wall (Fig. 2, #18) of the cup into a hollow space formed between the cup and the plate, wherein one end (Fig. 3, #54) of

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the tube is connected with the switch housing and the other end (Fig. 3, #56) of the tube is closed off (see Fig. 2 by #64) and is operatively connected to a first (Fig. 3, #46 left of #54) of the at least two sections of the rod, with a second (Fig. 3, #46 right of #54 and #72) of the at least two sections of the rod extending into the switch housing and operating the movable switching contact, wherein the tube and the rod have different thermal expansion coefficients, wherein the second section of the rod terminates (see Fig. 2) outside the hollow space of the cup, and wherein the product of the thermal expansion coefficient of the second section of the rod and a length of the second section located in the switch housing is selected based on a product of the thermal expansion coefficient of the switch housing and a length of the switch housing between a side of the switch housing facing the cup and support members of the stationary switch contacts in a direction parallel to the rod (this limitation of the product of the thermal expansion coefficient and length is an inherent property of the materials and dimensions of the switch housing and the second portion of the rod).

With respect to Claim 9, McWilliams et al. further teaches the plate comprises a ceramic plate (Col. 4, lines 33-34) or a steel plate which form a cooking surface.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over McWilliams et al. (US 5,310,993) as applied to claim 1 above, in view of Petri et al. (US 6,304,165).

With respect to Claim 2, McWilliams teaches the temperature sensor of claim 1, but fails to disclose a smaller expansion coefficient of the second rod section in relation to the switch housing. Petri teaches that the product of the thermal expansion coefficient of the rod (Fig. 1, #17) projecting into the switch housing (Fig. 1, #12) is smaller than the thermal expansion coefficient of the tube (Fig. 1, #15) extending to the switch housing. While Petri fails to disclose the thermal expansion coefficient of the switch housing, it would be obvious that for the bimetallic assembly to operate the rod that is contained within the tube and the housing, the thermal expansion of the tube and housing would have to be greater than the rod for the rod to be pulled off the moveable contact as the temperature increases.

5. Claims 3-4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over McWilliams et al. (US 5,310,993) as applied to claim 1 above, in view of Bowling (US 4,008,454).

With respect to Claim 3, McWilliams teaches the temperature sensor of claim 1, but fails to disclose that the thermal expansion of the second portion of the rod is equal to the switch housing. Bowling teaches that the product of the thermal expansion coefficient of the second section of the rod (#78) and the length of the second section projecting into the tube extending beyond the cup is equal to (abstract lines 10-11) the product of the thermal expansion coefficient of the tube extending beyond the cup and

the length of the tube extending beyond the cup. While Bowling fails to teach the thermal expansion coefficient of the housing, it would be obvious that to compensate for the ambient temperature conditions for the second portion of the rod extending into the switch housing, the thermal expansion for entire length outside the cup should be matched to the second portion of the rod. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the temperature sensor of McWilliams et al. with that of Bowling for the purpose of providing same amount of thermal expansion between the cup and the moveable contact which may be accomplished by selecting materials based on their coefficients of thermal expansion or fabricating these components from the same material which insures the same amount of thermal expansion in order to compensate for the ambient temperature outside of the cup and prevent overshoot of the calibration temperature.

With respect to Claim 4, McWilliams teaches the temperature sensor of claim 1, but fails to disclose that the thermal expansion the at least two sections of the rod have different heat absorption coefficients. Bowling teaches that the thermal expansion the at least two sections (Fig. 1, #58 and #78) of the rod have different heat absorption coefficients (Abstract, line 10). With respect to Claim 8, McWilliams in view of Bowles fails to teach that the heat absorption coefficient of the second section of the rod is matched to a heat absorption coefficient of the housing. Bowling teaches that the heat absorption coefficient of the second section of the rod is matched (Abstract, lines 10-11) to a heat absorption coefficient of the tube extending beyond the cup. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to

modify the temperature sensor of McWilliams et al. with that of Bowling for the purpose of providing a different thermal expansion of expansion outside the cup that includes both the tube portion extending outside the cup and the switch housing to compensate for the ambient temperature outside of the cup and prevent overshoot of the calibration temperature.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over McWilliams et al. (US 5,310,993) in view of Bowling (US 4,008,454) as applied to above claims, and further in view of Ebert (US 4,164,642).

With respect to Claim 5, McWilliams in view of Bowling teach the claimed invention, but fail to disclose that the heat absorption coefficients are defined by surface features of the rod. Ebert teaches that the heat absorption coefficients are defined by surface features of the rod, said surface features selected from the group consisting of surface coloration (Col. 1, lines 34-36), cross-sectional profiles and surface roughness. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the temperature sensor of McWilliams in view of Bowling with that of Ebert for the purpose of modifying the heat absorbing properties of the rod by of a material based on the configuration or surface treatment of the material.

7. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over McWilliams et al. (US 5,310,993) in view of Bowling (US 4,008,454) as applied to above claims, and further in view of McWilliams (US 4,665,307).

With respect to Claim 6, McWilliams et al. ('993) in view of Bowling teach the claimed invention, but fail to disclose that the heat absorption coefficients are adapted by adding

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a metal. McWilliams ('307) teaches that the heat absorption coefficients are adapted by adding a metal (Col. 1, lines 62-63). With respect to Claim 7, McWilliams ('307) teaches the heat absorption coefficients are adapted by addition of Al_2O_3 (Col. 1, line 65). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the temperature sensor of McWilliams et al. ('993) in view of Bowling with that of McWilliams ('307) for the purpose of modifying the heat absorbing properties of the rod by adding a radiation reflective material.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert J. Hoffberg whose telephone number is (571) 272-2761. The examiner can normally be reached on 8:30 AM - 4:30 PM Mon - Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RJH *[Signature]*

[Signature]
LYNN FEILD
SUPERVISORY PATENT EXAMINER
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